



KS3 Product Design Woods / Timbers



Categories

Hardwoods

Softwoods

Manufactured Boards



Deciduous

Coniferous

Lose their leaves

Evergreen needle leaf

Sheet material

Examples

Examples

Plywood

Chipboard

MDF

Red Deal

Oak

Ash

Scots Pine

Exotic Hardwoods

Mahogany

Cedar

Beech

Teak

Others:
Douglas Fir / Spruce

Others:
Elm / Chestnut



FSC – Forestry Stewardship Council

FSC's "tick tree" logo is used to indicate that products are certified under the FSC system.



KS3 Product Design Metals

Categories



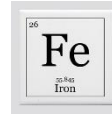
Technology
Student video
on youtube for
metals



Ferrous



E.G. Iron Ore



Contains Iron

Magnetic



Examples

Iron (Fe 26)



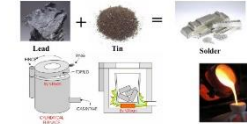
Mild Steel



Others:
Wrought Iron / Low carbon steel

Alloys

How are Metal Alloys made.



The metals forming the alloy are melted in a furnace in a crucible. They are then poured into blocks called ingots and allowed to solidify. When a molten metal is mixed with another molten metal and allowed to solidify an alloy is formed. The new solid metal will have gone through "Phase" changes to become an alloy.

Mixture of metals

Brass



Pewter



Precious Metals

Gold (Au 79)



Silver (Ag 47)



Non-Ferrous



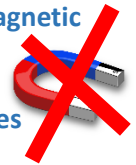
E.G. Bauxite (Aluminium)

Al
Aluminum

Does NOT contain Iron

NON magnetic

Examples



Aluminium (Al 13)



Lead (Pb 82)



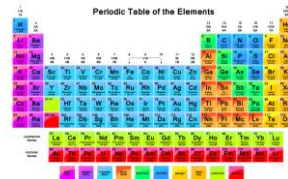
Copper (Cu 29)



Others:

Tin / Titanium / Nickel

Metals appear on the
Periodic table - SCIENCE



Metals – How metals are mined
Video – steel from start to finish

